

Amendments to the Claims

This listing of claims will replace all prior versions of claims in this application.

LISTING OF CLAIMS:

1. (Currently amended) A skimmer in a mass spectrometer comprising:
a body having an orifice through which ions can pass, wherein [at least a portion of] the entire body [comprises]is wholly fabricated from titanium metal.

- 2-4. (Cancelled)
5. (Currently amended) The skimmer of claim 1, wherein:
the [at least a portion of the] body at least partially surrounds and defines the orifice.

6. (Previously presented) The skimmer of claim 1, wherein:
the titanium metal comprises an alloy of titanium.

7. (Previously presented) The skimmer of claim 6, wherein:
the alloy of titanium is an alloy of titanium and one or more of the metals in the group consisting of aluminum, vanadium, molybdenum, manganese, iron, platinum, tin, copper, niobium, zirconium, and chromium.

8. (Previously presented) The skimmer of claim 1, wherein:
the titanium metal comprises commercially pure titanium.

9. (Previously presented) The skimmer of claim 8, wherein:
the titanium metal comprises commercial grade I, II, III, or IV titanium.

10. (Cancelled)

11. (Previously presented) The skimmer of claim 1, wherein:
the skimmer is configured such that an electrostatic potential can be applied.
12. (Previously presented) The ion transfer component of claim 1, wherein:
the skimmer is configured such that an RF potential can be applied.
- 13-19. (Cancelled)
20. (Currently amended) A system for analyzing ions, the system comprising:
a source of ions for generating ions; and
a skimmer including a body having an orifice through which ions can pass, wherein the body is wholly fabricated from titanium metal [according to claim 1].
21. (Previously presented) The system of claim 20, wherein:
the ions adiabatically expand to form a supersonic free jet, and
at least a portion of the skimmer is disposed in an area of the free jet expansion.
22. (Previously presented) The system of claim 20, wherein:
the ions adiabatically expand to form a supersonic free jet, and
at least a portion of the skimmer is disposed in a zone of silence resulting from the free jet expansion area.
23. (Previously presented) The system of claim 20, wherein:
the ions adiabatically expand to form a supersonic free jet, and
at least a portion of the skimmer is disposed outside an area of free expansion.
24. (Previously presented) The system of claim 20, wherein:
the source of ions comprises an orifice or aperture through which the ions emerge, and
at least a portion of the skimmer is disposed such that the orifice is disposed opposingly to the emerging ions

25. (Previously presented) The system of claim 20, wherein:
the ions generated by the source emerge along an axis, and
at least a portion of the skimmer is disposed at an angle from the axis.